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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/666,184

Applicant(s)

KLEIN, DEAN A.

Examiner

JOHN R. SCHNURR

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the Amendment after Non-Final Rejection filed 03/31/2008. Claims 1-51 are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12 and 34-41 have been considered but are moot in view of the new ground(s) of rejection.

3. The previous rejections for claims 13-33 and 42-51 have been maintained because the claims contain the limitation of two-way communications being carried *at least in part* over the tree configuration. Freadman (US Patent 6,288,749) meets this limitation as downstream data is carried over the tree configuration and upstream data is transmitted via radio frequency.

Double Patenting

4. Claims **1-51** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6-12 of U.S. Patent No. 6,637,030. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are different definitions or descriptions of the same subject matter varying in breadth. For example, note the following relationship between the instant application and the patented claims.

a) the preamble of claim 1, a network bus, corresponds to the local area network (line 1) of patented claim 6;

b) the claimed notch filter (line 2) of application claim 1 corresponds to the notch filter (line 2) of patented claim 6;

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c) the claimed tree configuration (lines 2-3) of application claim 1 corresponds to the unlooped cable television wire (line 7) of patented claim 6.

d) the frequency converter (line 5) of application claim 1 corresponds to the frequency converter (line 2) of patented claim 8; and

e) the first and second frequencies being within the filtered out portion (lines 7-8) of the application claim 1 corresponds to the carrier having a frequency within the filtered out portion (lines 19-21) of the patented claim 6.

It would have been obvious to one of ordinary skill in the art to readily recognize that the conflicting claims are different definitions or descriptions of the same subject matter varying in breadth. In this case, the application claims are broader and inclusive to the patented claims.

Additionally, it would have been obvious to one of ordinary skill in the art to modify the patented invention to include a coaxial cable because it is the most readily available and widely used transmission medium to transport audio and video signals.

Claim 2 of the application corresponds to claim 8 (line 2) of the patent.

Claims 3, 18 and 21 of the application correspond to claim 12 (line 9) of the patent.

Claims 4 and 23 of the application correspond to claim 6 (line 2-3) of the patent.

Claims 5, 24 and 38 of the application correspond to claim 6 (line 5) of the patent.

Claims 6, 13, 20, 34 and 42 of the application correspond to claim 8 (inclusive of claims 6 and 7) of the patent.

Claim 7 of the application corresponds to claim 6 (line 25) of the patent.

Claims 8, 35 and 48 of the application correspond to claim 7 of the patent.

Claim 9 of the application corresponds to claim 8 of the patent.

Claims 10 and 36 of the application correspond to claim 9 of the patent.

Claims 11 and 37 of the application correspond to claim 10 of the patent.

Claims 12 and 44 of the application correspond to claim 11 of the patent.

Claims 14 and 43 of the application correspond to claim 6 (lines 10-16) of the patent.

Claims 15, 16, 22, 29-33, 39, 40, 41, 47, 50 and 51 of the application correspond to claim 12 (line 10) of the patent.

Claim 17 of the application corresponds to claim 6 (line 5) of the patent.

Claims 19, 26, 28, and 49 of the application correspond to claim 6 (lines 17-21) of the patent.

Claim 25 of the application corresponds to claim 6 (lines 2-6) of the patent.

Claim 27 of the application corresponds to claim 6 (line 5) of the patent.

Claim 45 of the application corresponds to claim 6 (line 7) of the patent.

Claim 46 of the application corresponds to claim 6 (line 7-8) of the patent.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Freadman (US Patent 6,288,749)** in view of **Smith et al. (US Patent 6,195,530)**, herein Smith.

Consider **claim 1**, Freadman clearly teaches a network bus comprising:

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a notch filter coupled to a cable, **(Fig. 1: Signal converted 20 contains a notch filter, column 3 lines 52-62.)** said cable routed in a tree configuration to a plurality of locations of a building, **(Fig. 1: The plurality of locations in Fig. 1 are in a tree configuration and the locations are in the same building, column 3 lines 63-67.)** said notch filter configured to filter out a portion of video signals carried by said cable; **(column 3 lines 52-62)**

Freadman further teaches modulating data to the notched frequency for distribution over the network **(column 3 lines 36-48)** and communication between the network devices **(column 4 lines 22-30)**. However, Freadman does not explicitly teach a frequency converter, coupled to coaxial cable, configured to receive signals from said tree configuration at a first frequency and to forward said signals within said tree configuration at a second frequency, wherein said first and second frequencies are within said filtered out portion.

In an analogous art, Smith, which discloses a local video distribution network, clearly teaches the network comprises a tree configuration using coaxial cable **(Fig. 1 transmission link 6, column 3 lines 46-50)**, a frequency converter receiving signals from the tree configuration at a first frequency, converting the signals to a second frequency and transmitting the signals back to the tree configuration, wherein the first and second frequencies are within the filtered out portion. **(Fig. 1: Addressable transmitter/receiver 10 receives signals from the terminals 7, 8 or 9 over link 6 at a first frequency and transmits data to the terminals over the link 6 at a separate frequency, column 4 lines 36-57.)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by modulating upstream and downstream communications in separate frequencies, as taught by Smith, for the benefit of eliminating the upstream RF link of Freadman.

Consider **claim 2**, Freadman combined with Smith, as in claim 1, clearly teaches said frequency converter is configured to forward said signals via said coaxial cable. **(Fig. 1 transmission link 6, column 3 lines 46-50 Smith)**

Consider **claim 3**, Freadman combined with Smith, as in claim 1, clearly teaches said building comprises a residential building. **(Any type of building may be used, column 3 lines 63-67 Freadman.)**

Consider **claim 4**, Freadman combined with Smith, as in claim 1, clearly teaches said video signals are delivered to said coaxial cable from a headend equipment of a community antenna television system. **(column 3 lines 23-25 Freadman)**

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Consider **claim 5**, Freadman combined with Smith, as in claim 1, clearly teaches said filtered out portion comprises a frequency range from approximately 50MHz to approximately 750MHz. **(The notch filter filters out a television channel, column 3 lines 52-62 Freadman.)**

7. Claims **6-9 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Freadman (US Patent 6,288,749)** in view of **Smith et al. (US Patent 6,195,530)**, as applied to claim 1 above, and further in view of **Coutinho (US Patent 5,760,822)**.

Consider **claim 6**, Freadman clearly teaches a local area computer network comprising:

a notch filter configured to receive a signal from a cable television transmission system **(column 3 lines 23-25 Freadman)** and to filter out at least one portion of said signal in the range of approximately 50 MHz to approximately 750 MHz to produce a filtered signal; **(Fig. 1: Signal converted 20 contains a notch filter, which filters out a television channel, column 3 lines 52-62.)**

a community antenna television wire configured to receive said filtered signal and routed in a tree configuration to a plurality of locations of a residence, said wire coupled to said notch filter; **(Fig. 1: The plurality of locations in Fig. 1 are in a tree configuration and the locations are in the same building, column 3 lines 63-67.)**

Freadman further teaches modulating data to the notched frequency for distribution over the network **(column 3 lines 36-48)** and communication between the network devices **(column 4 lines 22-30)**. However, Freadman does not explicitly teach a plurality of computers coupled to said wire, each of said computers having a modem configured to receive and transmit broadband signals between said computers within said tree configuration; wherein said computers are configured to send and receive communications between different ones of said computers via said modems by modulating a carrier having a frequency within said filtered out portion.

In an analogous art, Smith, which discloses a local video distribution network, clearly teaches the network comprises a tree configuration **(Fig. 1 transmission link 6, column 3 lines 46-50)**, a plurality of computers coupled to the wire each having a modem for transmission of broadband signals between the computers over the tree configuration, wherein said computers are configured to send and receive communications between different ones of said computers via said modems by modulating a carrier. **(Fig. 2: Each of the terminals 7, 8 or 9**

contains up/down converter 201, demodulator 202 and data receiver 203 for demodulating data received from the network and modulating data to be transmitted via the network, column 5 lines 13-34.)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by using modems within a group of computers for modulating upstream and downstream communications in separate frequencies, as taught by Smith, for the benefit of eliminating the upstream RF link of Freadman.

However, Freadman and Smith do not explicitly teach transmitting upstream signals to the cable television transmission system;

In an analogous art, Coutinho, which discloses a system for transmitting data to a local in-building network, clearly teaches a transmitter for forwarding signals to headend transmission equipment. **(column 5 lines 23-50)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman and Smith by communicating an upstream message, as taught by Coutinho, for the benefit of providing a means for the user to communicate with the headend.

Consider **claim 7**, Freadman combined with Smith and Coutinho, as in claim 6, clearly teaches the computers are configured to send said upstream signals to said cable television transmission system using a carrier frequency in the range of approximately 0 MHz to approximately 50 MHz. **(column 5 lines 23-50 Coutinho)**

Consider **claim 8**, Freadman combined with Smith and Coutinho, as in claim 6, clearly teaches said modems are configured to receive a signal at a first frequency and to transmit said signal at a second frequency, **(Fig. 2: Each of the terminals 7, 8 or 9 contains up/down converter 201, demodulator 202 and data receiver 203 for demodulating data received from the network and modulating data to be transmitted via the network, column 5 lines 13-34 Smith.)** wherein said first and second frequencies are within said filtered out portion. **(Data communication takes place in the filtered portion of the spectrum, column 3 lines 36-62 Freadman.)**

Consider **claim 9**, Freadman combined with Smith and Coutinho, as in claim 6, clearly teaches a frequency converter configured to convert signals from said first frequency to said second frequency. **(Fig. 1: Addressable transmitter/receiver 10 receives signals from the terminals 7, 8 or 9 over link 6 at a first frequency and transmits data to the terminals over the link 6 at a separate frequency, column 4 lines 36-57 Smith.)**

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Consider **claim 12**, Freadman combined with Smith and Coutinho, as in claim 6, clearly teaches at least one of said computers is configured to receive signals from said transmission system using a carrier frequency in the range of approximately 0 MHz to approximately 50 MHz. **(column 5 lines 23-50 Coutinho)**

8. Claims **13, 15-33, 42 and 45-51** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Freadman (US Patent 6,288,749)** in view of **Decker et al. (US Patent 6,009,465)**, herein Decker.

Consider **claim 13**, Freadman clearly teaches a local area network comprising:

routing community antenna television wiring in a tree configuration to different parts of a structure; **(Fig. 1: Data from broadcast source 100 is routed in a tree configuration to televisions 30 located within a structure, column 3 lines 23-25; lines 62-67.)**

coupling a notch filter to said wiring for filtering out one or more television broadcasts delivered to said wiring by a service drop of a community antenna television distribution system; ; **(Fig. 1: Signal converted 20 contains a notch filter, which filters out a television channel, column 3 lines 52-62.)**

Freadman further teaches messages may be transmitted between the television sets in the filtered frequencies. **(column 4 lines 28-30)** To accomplish this data must be modulated and demodulated by the television sets.

However, Freadman does not explicitly teach a plurality of computers coupled to said wire.

In an analogous art, Decker, which discloses a system for a local area network wherein filtered signals are displayed on a television set, clearly teaches a plurality of computers coupled to said wire. **(column 12 lines 16-19 Decker)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by utilizing a plurality of computers coupled to said wire, as taught by Decker, for the benefit of providing the user with added interactive functionality.

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Consider **claim 15**, Freadman combined with Decker, as in claim 13, clearly teaches computing devices comprise a computer and a microprocessor controlled appliance. **(column 12 lines 16-23 Decker)**

Consider **claim 16**, Freadman combined with Decker, as in claim 13, clearly teaches said computing devices comprise an alarm system. **(Any device capable of transmitting sensory data may be used, column 12 lines 16-19 Decker.)**

Consider **claim 17**, Freadman combined with Decker, as in claim 13, clearly teaches said filtered out television broadcasts comprise a portion of the frequency range between approximately 50 MHz to 750 MHz. **(Television channels are located in the range of 50-750 MHz.)**

Consider **claims 18/15, 18/16, 18/17**, Freadman combined with Decker, as in claim 13, clearly teaches said building comprises a residential building. **(Any type of building may be used, column 3 lines 63-67 Freadman.)**

Consider **claim 19**, Freadman combined with Decker, as in claim 13, clearly teaches at least some of said computing devices transmit communications at a first frequency and receive communications at a second frequency, wherein said first and second frequency are within said filtered out television broadcasts. **(Television sets 30 receive signals modulated at a television channel frequency and may communicate with each other, column 4 lines 22-30 Freadman.)**

Consider **claim 20**, Freadman clearly teaches a local area network comprising:

coupling a notch filter to wiring carrying television signals, wherein the coaxial wiring is routed in a tree configuration to a plurality of locations in a building; **(Fig. 1: Data from broadcast source 100 is sent to Signal converted 20, which contains a notch filter, then routed in a tree configuration to televisions 30 located within a structure, column 3 lines 23-25; lines 62-67.)**

filtering out a frequency band comprising a portion of said television signals with the notch filter; **(column 3 lines 52-62)**

establishing two-way communications between at least two computing devices within the building and connected via the tree configuration, wherein said communications are carried at least in part over said wiring utilizing said frequency band. **(column 4 lines 28-30)**

However, Freadman does not explicitly teach said cable is a coaxial cable.

In an analogous art, Decker, which discloses a system for a local area network wherein filtered signals are displayed on a television set, clearly teaches the use of coaxial cable to transmit data. **(column 5 lines 1-2)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by using coaxial cable, as taught by Decker, because both references teach methods of distributing data in a network it would have been obvious to substitute one cable type for another to achieve the predictable result of transmitting data.

Consider **claims 21 and 22**, said building comprises a residential building and said residential building comprises a plurality of rooms of a residence.. **(Any type of building may be used, column 3 lines 63-67 Freadman.)**

Consider **claim 23**, Freadman combined with Decker, as in claim 20, clearly teaches said television signals are delivered to said building via a service drop of a community antenna television system. **(column 3 lines 23-25 Freadman)**

Consider **claim 24**, see claim 17.

Consider **claim 25**, Freadman combined with Decker, as in claim 20, clearly teaches blocking at least some of said communications from being transmitted outside said local area network via said service drop. **(Fig. 1: Signal converter 20 contains a comb filter 61 Freadman.)**

Consider **claim 26**, see claim 19.

Consider **claim 27**, Freadman combined with Decker, as in claim 20, clearly teaches providing a frequency converter configured to receive said communications at said first frequency and to forward said communications at said second frequency. **(Fig. 1: Signal converter 20 converts signals from one frequency to another frequency, column 3 lines 37-41 Freadman.)**

Consider **claim 28**, Freadman combined with Decker, as in claim 20, clearly teaches one of the computing devices sends a communication to another of the computing devices at a first frequency, and wherein said another computing device receives said communication at a second frequency. **(Computing devices receive data on a channel frequency and transmit data via a separate frequency, column 4 lines 22-36 Freadman.)**

Consider **claim 29**, Freadman combined with Decker, as in claim 20, clearly teaches the method of claim 23.

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However, Freadman combined with Decker, as in claim 20, does not explicitly teach said computing devices comprise a network computer.

Decker further teaches said computing devices comprise a network computer. **(column 12 lines 16-19 Decker)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by utilizing a plurality of computers coupled to said wire, as taught by Decker, for the benefit of providing the user with added interactive functionality.

Consider **claim 30**, see claim 29.

Consider **claim 31**, see claim 16.

Consider **claim 32**, see claim 29.

Consider **claim 33**, see claims 30-32.

Consider **claim 42**, Freadman clearly teaches a local area network comprising:

receiving a television signal from a headend transmission equipment of a cable television transmission system; **(Fig. 1: Data from broadcast source 100 is routed to televisions 30, column 3 lines 23-25.)**

filtering out a portion of said television signal in the range of approximately 50 MHz to approximately 750 MHz to produce a filtered signal; **(Fig. 1: Signal converted 20 contains a notch filter, which filters out a television channel, column 3 lines 52-62.)**

coupling said filtered signal to unlooped cable television wiring; **(Fig. 1: Data from broadcast source 100 is routed in a tree configuration to televisions 30, column 3 lines 23-25.)**

Freadman further teaches messages may be transmitted between the television sets in the filtered frequencies. **(column 4 lines 28-30)** To accomplish this data must be modulated and demodulated by the television sets.

However, Freadman does not explicitly teach a plurality of computers coupled to said wire.

In an analogous art, Decker, which discloses a system for a local area network wherein filtered signals are displayed on a television set, clearly teaches a plurality of computers coupled to said wire. **(column 12 lines 16-19 Decker)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by utilizing a plurality of computers coupled to said wire, as taught by Decker, for the benefit of providing the user with added interactive functionality.

Consider **claim 45**, Freadman combined with Decker, as in claim 42, clearly teaches said building comprises a residential building. **(Any type of building may be used, column 3 lines 63-67 Freadman.)**

Consider **claim 46**, Freadman combined with Decker, as in claim 42, clearly teaches a local area network.

However, Freadman and Decker do not explicitly teach said cable is a coaxial cable.

In an analogous art, Decker, which discloses a system for a local area network wherein filtered signals are displayed on a television set, clearly teaches the use of coaxial cable to transmit data. **(column 5 lines 1-2)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by using coaxial cable, as taught by Decker, because both references teach methods of distributing data in a network it would have been obvious to substitute one cable type for another to achieve the predictable result of transmitting data.

Consider **claim 47**, Freadman combined with Decker, as in claim 42, clearly teaches said computing devices comprise a network computer. **(column 12 lines 16-19 Decker)**

Consider **claim 48**, Freadman combined with Decker, as in claim 20, clearly teaches said modem in configured to receive communications at a first frequency and to send communications at a second frequency. **(Computing devices receive data on a channel frequency and transmit data via a separate frequency, column 4 lines 22-30 Freadman.)**

Consider **claim 49**, Freadman combined with Decker, as in claim 42, clearly teaches coupling a frequency converter to said wiring, wherein said frequency converter receives a communication at a first frequency and forwards said communication at a second frequency. **(Fig. 1: Signal converter 20 converts signals from one frequency to another frequency, column 3 lines 37-41 Freadman.)**

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Consider **claim 50**, Freadman combined with Decker, as in claim 42, clearly teaches said computing devices comprise a personal computer. **(column 12 lines 16-19 Decker)**

Consider **claim 51**, see claim 50.

9. Claims **14, 18/14, 43 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Freadman (US Patent 6,288,749)** in view of **Decker et al. (US Patent 6,009,465)**, as applied to claim 13 above, and further in view of **Coutinho (US Patent 5,760,822)**.

Consider **claim 14**, Freadman combined with Decker, as in claim 13, clearly teaches each of at least some of said computing devices comprises a receiver configured to receive video signals from said headend transmission equipment, **(column 3 lines 23-25)** and a modem configured to receive and transmit broadband signals between said computing devices. **(column 4 lines 28-30)**

However, Freadman and Decker do not explicitly teach a transmitter for forwarding signals to said headend transmission equipment.

In an analogous art, Coutinho, which discloses a system for transmitting data to a local in-building network, clearly teaches a transmitter for forwarding signals to said headend transmission equipment. **(column 5 lines 23-50)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman and Decker by communicating an upstream message, as taught by Coutinho, for the benefit of providing a means for the user to communicate with the headend.

Consider **claim 18/14**, Freadman combined with Decker, as in claim 13, clearly teaches said building comprises a residential building. **(Any type of building may be used, column 3 lines 63-67 Freadman.)**

Consider **claim 43**, Freadman combined with Decker, as in claim 42, clearly teaches each of at least some of said computing devices comprises a receiver configured to receive video signals from said headend transmission equipment, **(column 3 lines 23-25)**

However, Freadman and Decker do not explicitly teach a transmitter for forwarding signals to said headend transmission equipment.

In an analogous art, Coutinho, which discloses a system for transmitting data to a local in-building network, clearly teaches a transmitter for forwarding signals to said headend transmission equipment. **(column 5 lines 23-50)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman and Decker by communicating an upstream message, as taught by Coutinho, for the benefit of providing a means for the user to communicate with the headend.

Consider **claim 44**, Freadman combined with Decker, as in claim 42, clearly teaches personal computers sending signals over a network.

However, Freadman and Decker do not explicitly teach communicating an upstream, message using a carrier frequency in the range of 0-50 MHz.

In an analogous art, Coutinho, which discloses a system for transmitting data to a local in-building network, clearly teaches using a carrier frequency in the range of 6-11 MHz, which is in the claim 0-50 MHz. **(column 5 lines 23-50)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman and Decker by communicating an upstream, message using a carrier frequency in the range of 0-50 MHz, as taught by Coutinho, for the benefit of providing a means for the user to communicate with the headend.

10. Claims **34, 35 and 38-41** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Freadman (US Patent 6,288,749)** in view of **Smith et al. (US Patent 6,195,530)** further in view of **Coutinho (US Patent 5,760,822)** and further in view of **Sanders et al. (US Patent 5,742,713)**, herein Sanders.

Consider **claim 34**, Freadman clearly teaches a network device comprising:

a receiver for receiving a television signal from a community antenna television system; **(column 3 lines 23-25)**

a notch filter configured to block at least one stop frequency band within the received television signal; **(column 3 lines 49-62)**

Freadman further teaches modulating data to the notched frequency for distribution over the network **(column 3 lines 36-48)** and communication

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between the network devices (**column 4 lines 22-30**). However, Freadman does not explicitly teach a modem configured to receive and transmit broadband signals between said computers within said tree configuration; wherein said computers are configured to send and receive communications between different ones of said computers via said modems by modulating a carrier having a frequency within said filtered out portion.

In an analogous art, Smith, which discloses a local video distribution network, clearly teaches the network comprises a tree configuration (**Fig. 1 transmission link 6, column 3 lines 46-50**), a plurality of computers coupled to the wire each having a modem for transmission of broadband signals between the computers over the tree configuration, wherein said computers are configured to send and receive communications between different ones of said computers via said modems by modulating a carrier. (**Fig. 2: Each of the terminals 7, 8 or 9 contains up/down converter 201, demodulator 202 and data receiver 203 for demodulating data received from the network and modulating data to be transmitted via the network, column 5 lines 13-34.**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman by using modems within a group of computers for modulating upstream and downstream communications in separate frequencies, as taught by Smith, for the benefit of eliminating the upstream RF link of Freadman.

However, Freadman and Smith do not explicitly teach a transmitter for forwarding signals to said headend transmission equipment.

In an analogous art, Coutinho, which discloses a system for transmitting data to a local in-building network, clearly teaches a transmitter for forwarding signals to said headend transmission equipment. (**column 5 lines 23-50**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman and Smith by communicating an upstream message, as taught by Coutinho, for the benefit of providing a means for the user to communicate with the headend.

However, Freadman, Smith and Coutinho do not explicitly teach the notch filter blocks the transmission of signals to the headend equipment at least within the at least one stop band.

In an analogous art, Sanders, which discloses a bidirectional cable system, clearly teaches a notch filter blocks the transmission of signals to the headend equipment at least within the at least one stop band. (**column 4 line 57 to column 5 line 67**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman, Smith and Coutinho by preventing upstream ingress noise using the notch filter, as taught by Sanders, for the benefit of further reducing noise on the upstream channel.

Consider **claim 35**, Freadman combined with Smith, Coutinho and Sanders, as in claim 34, clearly teaches said modem is configured to receive signals at a first frequency and to transmit said signals at a second frequency. (**Computing devices receive data on a channel frequency and transmit data via a separate frequency, column 4 lines 22-30 Freadman.**)

Consider **claim 38**, Freadman combined with Smith, Coutinho and Sanders, as in claim 34, clearly said receiver is configured to receive signals in the range of approximately 50 to 750 MHz. (**Television channels are located in the range of 50-750 MHz.**)

Consider **claim 39**, Freadman combined with Smith, Coutinho and Sanders, as in claim 34, clearly teaches said network device comprises a microprocessor controlled appliance. (**Fig. 2 Processor 206, column 5 lines 35-42 Smith**)

Consider **claim 40**, see claim 39.

Consider **claim 41**, see claim 39.

11. Claims **10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Freadman (US Patent 6,288,749)** in view of **Smith et al. (US Patent 6,195,530)** further in view of **Coutinho (US Patent 5,760,822)**, as applied to claim 9 above, and further in view of **Hendricks et al. (US Patent 6,738,978)**, herein Hendricks.

Consider **claims 10**, Freadman combined with Smith and Coutinho, as in claim 9, clearly teaches a local area network.

However, Freadman combined with Smith and Coutinho do not explicitly teach at least some of said computers are configured to receive digital data from the Internet via said wire.

In an analogous art Hendricks, which discloses a system for distributing television data, clearly teaches at least some of said computers are configured to receive digital data from the Internet via said wire. (**column 49 lines 57-62**)

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Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman combined with Smith and Coutinho by allowing at least some of said computers are configured to receive digital data from the Internet via said wire, as taught by Hendricks, for the benefit of providing diverse entertainment sources.

Consider **claims 11**, Freadman combined with Smith and Coutinho, as in claim 9 above, clearly teaches a local area network.

However, Freadman combined with Smith and Coutinho do not explicitly teach at least some of said computers are configured to receive FM audio signals via said wire.

In an analogous art Hendricks, which discloses a system for distributing television data, clearly teaches at least some of said computers are configured to receive FM audio signals via said wire. (**column 26 lines 37-39**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman combined with Smith and Coutinho by allowing at least some of said computers are configured to receive FM audio signals via said wire, as taught by Hendricks, for the benefit of providing diverse entertainment sources.

12. Claims **36 and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Freadman (US Patent 6,288,749)** in view of **Smith et al. (US Patent 6,195,530)** further in view of **Coutinho (US Patent 5,760,822)** and further in view of **Sanders et al. (US Patent 5,742,713)**, as applied to claim 34 above, and further in view of **Hendricks et al. (US Patent 6,738,978)**, herein Hendricks.

Consider **claim 36**, Freadman combined with Smith, Coutinho and Sanders, as in claim 34, clearly teaches a local area network.

However, Freadman combined with Smith, Coutinho and Sanders do not explicitly teach at least some of said computers are configured to receive digital data from the Internet via said wire.

In an analogous art Hendricks, which discloses a system for distributing television data, clearly teaches at least some of said computers are configured to receive digital data from the Internet via said wire. (**column 49 lines 57-62**)

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Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman combined with Smith, Coutinho and Sanders by allowing at least some of said computers are configured to receive digital data from the Internet via said wire, as taught by Hendricks, for the benefit of providing diverse entertainment sources.

Consider **claim 37**, Freadman combined with Smith, Coutinho and Sanders, as in claim 34, clearly teaches a local area network.

However, Freadman combined with Smith, Coutinho and Sanders do not explicitly teach at least some of said computers are configured to receive FM audio signals via said wire.

In an analogous art Hendricks, which discloses a system for distributing television data, clearly teaches at least some of said computers are configured to receive FM audio signals via said wire. (**column 26 lines 37-39**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Freadman combined with Smith, Coutinho and Sanders by allowing at least some of said computers are configured to receive FM audio signals via said wire, as taught by Hendricks, for the benefit of providing diverse entertainment sources.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN R. SCHNURR whose telephone number is (571)270-1458. The examiner can normally be reached on Monday - Friday, 8:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRS

/Christopher Grant/
Supervisory Patent Examiner, Art Unit 2623

